and ROCK-I mRNA expression were up-regulated in rat livers in model group, which reached the peak at the 21st day and the 14th day after operation respectively. Images of fluorescence using FITC-phalloidin to stainβ-actin showed that peripheral filament band is smooth and thin in normal liver tissue, but inhanced with the development of liver fibrosis.
Conclusions: The study suggested both proteins and mRNA of ROCK-I, α-SMA and p-MBS Thr-697 were increased with the development of liver fibrosis. The expression and the activation of ROCK-I were up-regulated, β-actin was proliferated and cytoskeleton was recombination during hepatic fibrogenesis.

Free Paper Presentation 4 – Infectious Diseases and Public Health

OL-028 Clinical analysis of 55 cases of *Staphylococcus aureus* septicemia

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Objective: To analyze clinical and susceptibility features of *Staphylococcus aureus* septicemia so as to provide evidences for clinical diagnosis and chemotherapy.
Methods: The clinical features and laboratory data were analyzed retrospectively based on 55 cases with *Staphylococcus aureus* septicemia in West China Hospital of Sichuan University from March 2004 to March 2008.
Results: In all 55 cases, 24 were hospital acquired infections (43.6%), while 31 were community acquired infections (56.4%), Intravenous drug users were 9.7% of the community acquired patients. Hospital and community acquired infections had no significant differences in clinical symptoms, signs and laboratory findings. Most of the hospital infected patients were the old with severe underlying diseases and variety of vulnerable factors, and they mainly distributed in ICU (37.4%). The mortality rate was 29.2%.Community infected patients were mostly young adults (80.6%), mainly distributed in Infection Department (48.4%), the mortality rate was 3.2%. The resistant rates of *Staphylococcus aureus* isolates from hospital and community to penicillin are 100% and 96.8%. The resistant rate of *Staphylococcus aureus* isolates from hospital (75.0%) to oxacillin was significantly higher than the community ones (32.3%). And one of the strains from the hospital acquired was VISA (vancomycin-intermediate resistance *Staphylococcus aureus*). The remaining strains are all sensitive to vancomycin.
Conclusion: The resistant rate of isolates of *Staphylococcus aureus* from both hospital and community acquired strains to antimicrobial that often used in the past was increased. So blood culture, marrow culture and antibiotic susceptibility tests should be taken and responsibly applied according to the results of antibiotic susceptibility test if septicemia was doubtful.

OL-029 *Pseudomonas aeruginosa* quorum sensing molecule N-(3-oxododecanoyl)-L-homoserine lactone induces apoptosis and calcium release in murine mast cells (P815)

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Background: Recently, an increasing body of evidence demonstrates that the *P. aeruginosa* quorum sensing (QS) signal molecule N-(3-oxododecanoyl)-L-homoserine lactone (3-oxo-C12-HSL), which plays a central role in orchestrating the expression of pathogenic genes and biofilm formation, can also interact with different eukaryotic cells and modulate immune response. Mast cells (MCs) are assumed to frequently contact and response to bacteria or bacterial-related factors since they are abundantly resident in the tissues that are constantly exposed to the external environment such as lung, intestine and skin. Given that biologically active levels of 3-oxo-C12-HSL are detected in clinic samples, it's reasonable to study the biological events on mast cells in response to 3-oxo-C12-HSL.
Objective: To investigate the biological effects of *Pseudomonas aeruginosa* quorum sensing molecule OdDHL on a murine mast cells (P815).
Methods: The molecule structure and purity of synthesized 3-oxo-C12-HSL were confirmed by mass spectrum or proton nuclear magnetic resonance (NMR) and high-pressure liquid chromatography respectively. Its biological activity was checked using a quorum sensing sensor bacterial strain. The viability, apoptosis and intracellular calcium changes of P815 cell line in response to different concentration of 3-oxo-C12-HSL were determined.
Results: The biological active 3-oxo-C12-HSL was synthesized successfully. 3-oxo-C12-HSL inhibited proliferation in P815 cells in a dose and time dependent fashion. A higher concentration of 3-oxo-C12-HSL induced significant apoptosis (about 40 percent) and increases intracellular calcium release in P815 cells.

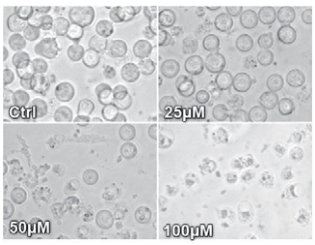

Fig. 1. Microscope images (400×) of P815 cells after treated with or without different concentrations of 3-oxo-C12-HSL for 12 h.

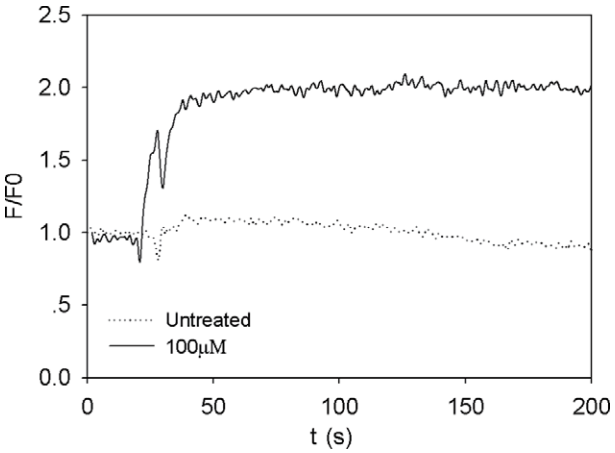

Fig. 2. Time-dependent changes of in Fluo-3 signal (an indicator of intracellular calcium) in P815 cells treated buffer with or without 100 μM 3-oxo-C12-HSL. F = fluorescence at 515 nm, F/F0 = average fluorescence divided by background fluorescence. Different challenges were treated at 20–30 seconds after fluorescence recording started.